

Proposal: *conservative merging* of model-independent HVP combination results

- Basic requirements for the *merging* procedure:
 - *Conservative* (see tensions between experimental data and differences between combinations based on same datasets)
 - *Accounting for correlations between different channels* (understood meaning of systematic uncertainties and identified 15 common ones, DHMZ since arXiv:1010.4180)
Yields *unavoidable increase of total uncertainty* $693.9 \pm 1.0 \pm 3.4 \pm 1.6 \pm 0.1_{\psi} \pm 0.7_{\text{QCD}}$
- Proposed *merging* procedure:
 - *Central value*: simple average of the DHMZ and KNT sums of channels
(the DHMZ and KNT central values are, *by chance*, very similar)
 - *Experimental uncertainties*: in each channel/mass range use max(DHMZ, KNT) and see by how much to increase the corresponding DHMZ uncertainty (sq. difference); enhance the DHMZ *sum of channels (with correlations)* by these amounts (sq. sum)
 - Use $|\underline{\text{DHMZ}}(\text{ch.}) - \underline{\text{KNT}}(\text{ch.})| / 2$ as *extra systematic* in each channel; independent between channels (sign of algebraic difference fluctuates for various channels)
 - o) $\pi\pi$ BABAR/KLOE systematic: max(DHMZ B./K. syst., $|\underline{\text{DHMZ}}(\pi\pi) - \underline{\text{KNT}}(\pi\pi)| / 2$)
(stay conservative, but avoid double-counting the effect of this B./K. tension)
 - o) $\pi^+\pi^-\pi^0$: do not include this systematic (difference understood: 1st/2nd order interp.)